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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/766,607	12/13/1996	JEFFREY JACOBSEN	KPN96-03A	7687

21005 7590 02/17/2006

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133

EXAMINER

PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-25 and 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The independent claims 1, 7, 17, 22, and 29 each newly recite the limitation of a "a separately operable handheld wireless telephone" (see the claim amendments submitted 5 December 2005). There is insufficient antecedent basis for this new limitation in any of the pending claims. More specifically, all five independent claims fail to distinctly specify what the handheld wireless telephone is *separately operable* from. One skilled in the art would be unable to conclusively determine if the handheld wireless telephone is *separately operable* from the docking system, the display housing, the control elements, the display circuit, the connection interface, the external communication interface, the active matrix liquid crystal display, the display data, the image, the light source, or the lens as presently claimed, for instance.

4. The remaining claims 2-6, 8-16, 18-21, 23-25, 27, and 28 are rejected under 35 U.S.C. 112, second paragraph, as simply being dependent upon rejected base claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilska et al. (United Kingdom - 2,289,555) in view of Takahara et al. (US 5,436,635).

In regards to claim 1, Wilska discloses a docking system for a portable wireless telephone, the portable wireless telephone [17] including a microphone [20], a speaker [19], and transceiver [18] circuitry with an external communication interface [16] within a telephone housing [17], the docking system comprising: a display housing [1] (see Figures 1-3; Page 5, Paragraph 3) having a plurality of control elements [10, 11] (see Figure 3; Page 4, Paragraph 3) and a display circuit [6], the display housing including a connection interface [8] that couples with an external communication interface [16] of a separately operable handheld wireless telephone [17], such that image data received by the handheld wireless telephone is transmitted to the display circuit (see Figure 3; Page 5, Paragraph 3) and a liquid crystal display [9] mounted to the display housing and connected to the display circuit, the display circuit generating display data presented on the liquid crystal display as an image (see Figures 1-2; Page 4, Paragraph 2). Wilska does not expressly disclose an active matrix LCD, a light source, nor an image lens.

However, Takahara discloses an active matrix liquid crystal display (see Column 33, Lines 22-28), a light source [Fig. 21, 211] positioned in a display housing [Fig. 21, 201] to illuminate the image [Fig. 21, 214], and a lens [Fig. 21, 216] in the display housing positioned to

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receive the image presented on the LCD for viewing by a user (see Column 28, Lines 30-49).

Wilska and Takahara are analogous art because they are from the shared field of handheld display devices. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD, light source, and lens assembly with Wilska's communication device, so as to provide a high quality, liquid crystal image that's easy to see (and read) in both dark and bright light.

In regards to claim 2, Wilska discloses at least a 320 x 240 pixel array (see Page 4, Paragraph 2).

In regards to claim 3, Wilska does not expressly disclose at least a 640 x 480 pixel array. However, Wilska does disclose providing a resolution greater than 640 x 200 pixels² (see Page 4, Paragraph 2). Therefore, for the purpose of providing a precise display image, it would have been obvious to an artisan at the time of invention to utilize at least a 640 x 480 pixel array.

In regards to claim 4, Wilska does not expressly disclose a transistor circuit array formed with single crystal silicon bonded to an optically transmissive substrate. However, Takahara discloses a transistor circuit array [Fig. 18A, 163] formed with single crystal silicon [Fig. 18A, 167c] bonded to an optically transmissive substrate [Fig. 18A, 162] with an adhesive layer [Fig. 18A, 167 a & 167b] (see Column 24, Line 44 - Column 25, Line 59). Therefore, it would have been obvious to an artisan at the time of invention to use Takahara's transistor circuit array as Wilska's LCD so as to reduce extraneous light reflectance.

In regards to claim 5, Wilska discloses a transmitter (see Figures 1-2; Page 5, Paragraph 3).

In regards to claim 6, Wilska discloses the display housing has a volume less than 1000 cm³ (see Page 3, Paragraph 8).

In regards to claim 7, this claim is rejected by the reasoning applied in the above rejection of claim 1; furthermore, Wilska discloses a docking system [17] for a portable handheld wireless telephone [17], the portable wireless telephone [17] including a microphone [20], a speaker [19], and transceiver [18] circuitry with an external communication interface [16] within a telephone housing [17], the docking system comprising: a handheld housing [1] having a plurality of control elements [10, 11] and a display circuit [6], the handheld housing including a connection interface [8] that couples with an external communication interface [16] of a separately operable handheld wireless telephone [17] (see Figures 1-3; Page 4, Paragraph 3 and Page 5, Paragraph 3); a display subhousing [9] carried by the handheld housing and moveable between a storage and operating position (see Figures 7-9), and a liquid crystal display [9] (see Figures 1-2; Page 4, Paragraph 2). Wilska does not expressly disclose an active matrix LCD, an LED light source, nor a magnifying image lens.

However, Takahara discloses an active matrix liquid crystal display (see Column 33, Lines 22-28), an LED light source [Fig. 21, 211] (see Column 30, Lines 1-18) positioned in a display subhousing [Fig. 21, 201] to illuminate the image [Fig. 21, 214] and a lens [Fig. 21, 216]

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in the display subhousing that is positioned to magnify the image presented on the LCD (see Column 28, Lines 30-49). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD, LED light source and magnifying lens assembly with Wilska's communication device, so as to provide a high quality liquid crystal image that's easy to see (and read) in both dark and bright light.

In regards to claim 8, Wilska does not expressly disclose a timing circuit. However, Takahara discloses a timing circuit (see Column 6, Line 52 - Column 7, Line 12). Therefore, it would have been obvious to an artisan at the time of invention to use Takahara's timing circuit with Wilska's LCD so as to regulate driving-signal flow to the display.

In regards to claim 9, Wilska discloses a battery [3] (see Figure 3).

In regards to claim 10, Wilska discloses a cradle [16] (see Figure 2; Page 5, Paragraph 2). For the purpose of securing the telephone to the communication device, it would have been obvious to an artisan at the time of invention to utilize Wilska's cradle to connect a telephone and to obtain the invention as specified in claim 10.

In regards to claim 11, Wilska discloses a connector [8] adapted to be received by the external communication interface in the handheld wireless telephone [17], further comprising a latch [16]. For the purpose of securing the telephone to the communication device, it would have

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been obvious to an artisan at the time of invention to utilize Wilska's latch to connect a telephone and to obtain the invention as specified in claim 11.

In regards to claim 12, Wilska discloses a hidden lens in the storage position and a viewable lens in the operating position (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 13, Wilska discloses a rotatable display subhousing (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 14, Wilska discloses a display subhousing that translates relative to the handheld housing (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 15, Wilska discloses a display that both rotates and moves translationally (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 16, Wilska does not expressly disclose the array of pixel electrodes has a diagonal of 0.25 inches. However, for the purposes of manufacturing an easy to read display while keeping the display small and portable, it would have been obvious to an artisan at the time of invention to utilize a diagonal of 0.25 inches to obtain the invention as specified in claim 16.

In regards to claim 17, this claim is rejected by the reasoning applied in the above rejection of claim 1; furthermore, Wilska discloses a docking system [17] for a portable handheld wireless telephone [17], the portable wireless telephone [17] including a microphone [20], a speaker [19], and transceiver [18] circuitry with an external communication interface [16] within a telephone housing [17], the docking system comprising: a housing [1] having a plurality of control elements [10, 11] and a display circuit [6], the housing including a connector interface [8] that couples with an external communication interface [16] of a separately operable handheld wireless telephone [17] (see Figures 1-3; Page 4, Paragraph 3 and Page 5, Paragraph 3), a display subhousing module [9] movable from a storage position to an operating position relative to the housing (see Figures 7-9) and a liquid crystal display [9] (see Figures 1-2; Page 4, Paragraph 2) and a battery [3] (see Figure 3). Wilska does not expressly disclose an active matrix LCD, an LED light source or a magnifying image lens.

However, Takahara discloses an active matrix liquid crystal display (see Column 33, Lines 22-28), an LED light source [Fig. 21, 211] (see Column 30, Lines 1-18) positioned in a display subhousing [Fig. 21, 201] to illuminate the image [Fig. 21, 214] and a lens [Fig. 21, 216] in the display subhousing that is positioned to receive the image presented on the LCD (see Column 28, Lines 30-49). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD, LED light source and magnifying lens assembly with Wilska's communication device, so as to provide a high quality liquid crystal image that's easy to see (and read) in both dark and bright light.

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In regards to claim 18, Wilska does not expressly disclose a backlight. However, Takahara discloses a backlight [Fig. 21, 211] (see Column 28, Lines 30-49 and Column 30, Lines 1-18). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's backlight with Wilska's LCD, so as to provide a display that's easy to see (and read) in the dark.

In regards to claim 19, Wilska does not expressly disclose a side illumination device. However, Takahara discloses a side illumination device [Fig. 21, 211] (see Column 28, Lines 30-49 and Column 30, Lines 1-18). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's side illumination device with Wilska's LCD, so as to provide a display that's easy to see (and read) in the dark.

In regards to claim 20, this claim is rejected under the reasoning applied in the above rejection of claim 8.

In regards to claim 21, Wilska does not expressly disclose drawing less than 0.2 watts. However, for the purpose of drawing very little power, it would have been obvious to draw less than 0.2 watts to obtain the invention as specified in claim 21.

In regards to claim 22, this claim is rejected by the reasoning applied in the above rejection of claim 1; furthermore, Wilska discloses a method of displaying an image on a docking system in conjunction with a portable handheld wireless telephone, the portable wireless

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telephone [17] including a microphone [20], a speaker [19], and transceiver [18] circuitry with an external communication interface [16] within a telephone housing [17], the method comprising: coupling an external communication interface [16] of a separately operable wireless telephone [17] with a connection interface [8] of a docking station [1] such that a display circuit [6] in the docking station receives image data from transceiver circuitry [17 & 18] of the wireless telephone capable of receiving audio and image data; and operating the display circuit connected to the transceiver circuitry and a matrix display to display an image on the display using the image data (see Figures 1-3; Page 5, Paragraph 3). Wilska does not expressly disclose an active matrix LCD.

However, Takahara discloses an active matrix LCD for generating display data from image data and presenting the display data as an image on the display (see Column 33, Lines 22-28). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD as Wilska's matrix display, so as to provide a high quality display image.

In regards to claim 23, Wilska discloses a battery [3] (see Figure 3).

In regards to claim 24, Wilska discloses coupling a camera [15, 16] (see Figures 1-3; Page 4, Paragraph 5).

In regards to claim 25, Wilska discloses selecting to view the camera image on the display, or transmitting the image to a remote location (see Figures 1-3; Page 5, Paragraph 1).

In regards to claim 27, Wilska discloses an array of at least 75,000 pixel electrodes (see Page 4, Paragraph 2). Wilska does not expressly disclose the LCD having an active area of less than 100mm². However, Wilska's does disclose variable LCD dimensions (see Page 4, Paragraph 2). Therefore, it would have been obvious to an artisan at the time of invention to utilize a smaller display area (such as 100mm² for instance) so as to conserve overall system size and weight.

In regards to claim 28, Wilska does not expressly disclose an array of at least 300,000 pixel electrodes. However, Wilska does disclose providing a resolution greater than 640 x 200 pixels² (see Page 4, Paragraph 2). Therefore, for the purpose of providing a precise display image, it would have been obvious to an artisan at the time of invention to utilize at least 300,000 pixel electrodes.

In regards to claim 29, this claim is rejected by the reasoning applied in the above rejection of claim 1.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Response to Arguments

8. Applicants' arguments filed 5 December 2005 have been fully considered but they are not persuasive. The applicants contend the cited prior art of Wilska (United Kingdom - 2,289,555) neglects to disclose a telephone that is "separately operable" (see page 9 of the amendment). The examiner respectfully disagrees. Wilska's radio-telephone [Fig. 3, 17] is disclosed "*preferably* as an integrated part" of the notebook computer (see Page 5, Paragraph 3 - Page 6, Paragraph 1). It is the examiner's position that Wilska implicitly implies with the above statement that a radio-telephone may also be externally attached (i.e. *docked* to, or *separately operable* from) the notebook computer.

Furthermore, even if that were arguably not the case, Wilska's preferred 'integrated' embodiment already fully constitutes a docking system as presently claimed. That is to say, fully reading on current claim language, Wilska's radio-telephone (i.e. "handheld wireless telephone") is indeed coupled/connected (i.e. "docked") with the display housing [Figs. 1 & 2, 1].

However, beyond these matters of semantics, Wilska explicitly discloses an alternate inventive embodiment comprising a cellular mobile phone system on a removable PCMCIA interface card, docking with the notebook computer's card slot [Fig. 3, 16] (see Page 14, Paragraph 2).

Moreover, one skilled in the art would appreciate that Wilska's handheld wireless telephone provides separate operation (i.e. is "separately operable") from the display housing [1]

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(see Figures 1-3; Page 5, Paragraph 3), the control elements [10, 11] (see Figure 3; Page 4, Paragraph 3), the display circuit [6], the connection interface [8], and the external communication interface [16] as claimed, for instance. For example, Wilska's operation of display circuitry is inherently *separate* (or differentiated) from telephone operations -- in much the same way that oil and water will be "separate," but will remain in physical contact with each other, when combined in a jar.

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

Conclusion

9. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.P.

7 February 2006



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600